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18

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,522	10/07/2005	Kengo Shibuya	TIP 042	2382
23408	7590	03/01/2007	EXAMINER	
GARY C. COHN, PLLC 1147 NORTH FOURTH STREET UNIT 6E PHILADELPHIA, PA 19123			HO, ANTHONY	
			ART UNIT	PAPER NUMBER
			2815	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/01/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/552,522	SHIBUYA ET AL.
	Examiner Anthony Ho	Art Unit 2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 October 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 07 October 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 2/13/2006.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on February 13, 2006 was filed after the mailing date of the instant application on October 7, 2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (JP 2000-249768) in view of Hamamatsu Microchannel Plate-Photo Multiplier Tube R5916U-50 Series product literature.

Nishimura discloses a radiation detection device comprising a CsBr crystal, that has a CsCl type crystal structure and the Cs:Br atom ratio is about 1:1, as a scintillator and a photoelectron multiplier tube for receiving a light from the scintillator (entire document).

Nishimura does not teach a photomultiplier tube built into a MCP.

However, Hamamatsu Microchannel Plate-Photo Multiplier Tube R5916U-50 Series product literature teaches the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube (entire document).

The advantage is to obtain high speed gating with low supply voltage (entire document).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the radiation detection device comprising a CaBr crystal, that has a CaCl type crystal structure and the Cs:Br atom ratio is about 1:1, as a scintillator and a photoelectron multiplier tube for receiving a light from the scintillator as taught by Nishimura with the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube as taught by Hamamatsu Microchannel Plate-Photo Multiplier Tube R5916U-50 Series product literature in order to obtain high speed gating with low supply voltage.

### ***Conclusion***

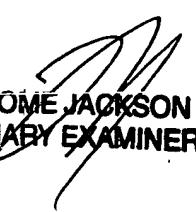
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shibuya et al (US Patent 6,787,250) teaches a radiation detection device. Takeoka et al (US Patent 6,716,927) teaches a perovskite-type organic/inorganic lamellar polymer. Martin et al (US Patent 2,923,824) teaches an X-ray detector. Hamamatsu Microchannel Plate-Photo Multiplier Tube R3809U-50 Series product literature teaches a compact MCP-PMT series featuring variety of spectral response with fast time response.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ho whose telephone number is 571-270-1432. The examiner can normally be reached on M-Th: 8:30AM-7:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH  
February 24, 2007

  
JEROME JACKSON  
PRIMARY EXAMINER